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BROMBERG & SUNSTEIN LLP
125 SUMMER STREET
BOSTON, MA 02110-1618

EXAMINER	
CUNNINGHAM, GREGORY F	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/601,842	OH ET AL.	
	Examiner	Art Unit	
	Gregory F. Cunningham	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 June 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☒ Claim(s) *15-17 and 20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 June 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10-23-03, 3-24-04, 4-9-04
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications of application received 06/23/2003.

2. The disposition of the claims is as follows: claims 1 - 20 are pending in the application. Claims 1, 11, 13 and 18 are independent claims.

3. The group and/or Art Unit location of your application has changed. To aid in the correlation of any papers for this application, all further correspondence should be directed to Group Art Unit 2628 (effective 03/06). Please be sure to use the most current art unit number on all correspondence to help us route your case and respond to you in a timely fashion.

4. When making claim amendments, the applicant is encouraged to consider the references in their entireties, including those portions that have not been cited by the examiner and their equivalents as they may most broadly and appropriately apply to any particular anticipated claim amendments.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1, 11, 13 and 18 are rejected under 35 U.S.C. 112, first paragraph, because the best mode contemplated by the inventor has not been disclosed. Evidence of concealment of the best mode is based upon the following: [see comments]

A. Claim 1 provides for a clone-brushing method of painting in an image, the method comprising:

a) specifying a first world plane in the image;

[any XYZ plane, geodesy surface, planetary surface or universally define surface]

b) providing a source position and a destination position in the image;

[source position is never used again in this claim or any of the dependent claims]

c) identifying a destination region in the image relative to the destination position;

d) determining a source region in the image relative to the first world plane and corresponding to the destination region;

[This "source region" in the image relative to the first world plane and corresponding to the destination region is not identified or found or located from existing regions necessarily. It, "source region", is if it were to exist, determined as a region in a way corresponding to the destination region. Corresponding how: Merriam Webster's Collegiate Dictionary says, a relationship to be in conformity or agreement, to be equivalent or parallel; having or participating in the same relationship (as kind, degree, position, correspondence, or functional). So the "source region", whether it exist or not, is determined and is now corresponding (see Webster) to the "destination region".]

e) transforming image information of the source region relative to the first world plane to image information of the destination region; and

["Image information" of the source region is transformed, (i.e.: changed, modified, adapted) to "image information" of the destination region. The "image information" of the source region has not transferred to the "image information" of the destination region. It, "image

information" of the source region, is transformed. What has taken place is a change in the "image information" of the source region to be like or appear like the "image information of the destination region. Although the words to be like or appear like have been interpreted for "to" image information of the destination region; the "image information of the source region" is essentially brought into being by the "image information of the destination region". So now they both image alike.]

f) copying the transformed image information to the destination region.

[Why copy the transformed (changed) "image information" (of the source region) to the destination region, particularly since it was the image information of the destination region to bring about or form the image information of the source region?

Copying the transformed image information to the destination region would not confer any sufficient difference to the destination region.]

B. Claims 11, 13 and 18 are exemplified by claim 1.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

A. Claims 3-5, 8, 14, 15 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Claim 3 recites the limitation "step a)" in line 1. There is insufficient antecedent basis for this limitation in the claim.

b. Claim 4 recites the limitation "step e)" in line 1. There is insufficient antecedent basis for this limitation in the claim.

c. Claim 5 recites the limitation "step e)" in line 6. There is insufficient antecedent basis for this limitation in the claim.

d. Claim 8 recites the limitation "step d)" in line 3 and "step e)" in line 6. There is insufficient antecedent basis for this limitation in the claim.

e. Claim 14 recites the limitation "step c)" in line 1. There is insufficient antecedent basis for this limitation in the claim.

f. Claim 15 recites the limitation "step c)" in line 1. There is insufficient antecedent basis for this limitation in the claim.

B. Claims 1, 11, 13 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

C. Claims 1, 11, 13 and 18 provides for the use of "a source position", but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

D. Claims 1, 11, 13 and 18 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd.* v. *Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

E. Claims 2-10, 12, 14-17 and 19-20 are rejected according to 8 B-D supra, since they depend from rejected independent claims 1, 11, 13 and 18.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1, 2 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gawronski et al. (US Patent Number 6,073,056), hereinafter Gawronski.

A. Gawronski discloses claim 1, "a clone-brushing method of painting in an image, the method comprising:

a) specifying a first world plane in the image [col. 1, ln. 13 – col. 3, ln. 14, wherein 'global coordinate system' corresponds to "first world plane"; and 'data model' corresponds to "image"];

b) providing a source position and a destination position in the image [col. 2, ln. 58 – col. 3, ln. 14, at The system also includes a measuring apparatus for measuring the first and second positions and orientations of the light measuring device relative to the physical part to obtain first and second sets of position data, respectively; wherein at least one entry of the first and second sets positions correspond to "a source position and a destination position"; wherein 'data model' corresponds to "image"];

c) identifying a destination region in the image relative to the destination position [col. 2, ln. 58 – col. 3, ln. 14, wherein 'second sets of position data' corresponds to "destination region" and wherein since at least one of the 'second sets of position data' corresponds to "destination position" the two must be relative];

d) determining a source region in the image relative to the first world plane and corresponding to the destination region [col. 2, ln. 58 – col. 3, ln. 14, at 'The system further includes a computer programmed to generate a first transform based on the first set of position data, generate a second transform based on the second set of position data, map the first set of 3-D point data in a global coordinate system based on the first transform, map the second set of 3-D point data in the global coordinate system based on the second transform, and integrate the first and second sets of 3-D points data in the global coordinate system to obtain the data model of the physical part in the data format.'; wherein 'first set of position data' and/or 'first sets of 3-D point data' correspond(s) to "source region"; 'second set of position data' and/or 'second sets of 3-D point data correspond(s) to "destination region"; 'global coordinate system' corresponds to "first world plane"; and since first and second surfaces, at first and second positions are associated with a physical part 'of the physical part' and respective 'data model' or "image" with 'first and second sets of 3-D point data' and/or 'first and second sets of position data' they (source and destination regions) have a corresponding relationship because they are both affiliated with the physical part and data model (image).];

e) transforming image information of the source region relative to the first world plane to image information of the destination region [col. 2, ln. 58 – col. 3, ln. 25, at 'The system further includes a computer programmed to generate a first transform based on the first set of position data, generate a second transform based on the second set of position data, map the first set of 3-D point data in a global coordinate system based on the first transform, map the second set of 3-D point data in the global coordinate system based on the second transform, and integrate the

first and second sets of 3-D point data in the global coordinate system to obtain the data model of the physical part in the data format.

Preferably, the light measuring device is a Moire interferometry system including a camera which forms an array of pixels, each of the pixels having a gray scale level.

Also, preferably, the first and second sets of 3-D point data overlap in the global coordinate system and wherein integration of the sets of data includes filtering the 3-D point data which overlaps in the global coordinate system.

Still, preferably, the first and second sets of 3-D point data are joined in the global coordinate system to form a polygonal structure corresponding to the first and second surfaces of the physical part';

wherein transforming and integrating 'the first and second sets of 3-D point data in the global coordinate system to obtain the data model' corresponds to the implementation of "transforming image information of the source region to image information of the destination region", and which also lends functionality to the underlined coordinating conjunctive "to", but without the implication of "from", and furthermore wherein in the presence of the 3-D point data which overlaps and/or at the junction of joined first and second sets of 3-D point data, where both source regions and destination regions also overlap and/or are joined]; and

f) copying the transformed image information to the destination region;

although Gawronski does not appear to teach "copying the transformed image information to the destination region", Gawronski does disclose [col. 2, ln. 58 – col. 3, ln. 14, at 'and integrate the first and second sets of 3-D points data in the global coordinate system to obtain the data model of the physical part in the data format.']

Therefore it would have been obvious to one of ordinary skill in the art to perform "copying the transformed image information to the destination region" in view of Gawronski's teaching of 'integrate the first and second sets of 3-D points data in the global coordinate system to obtain the data model of the physical part in the data format.' [as detailed].

(Examiner's note: While element e) of claim 1 is silent on what image information is being transformed, any image information transformed here will satisfy this element, (i.e.: texture, color, hue, saturation, brightness, position, etc., or even only a single pixel or texel.)

B. Gawronski discloses claim 2, "The method of claim 1, wherein the source region in the image is determined via a homography defined by the first world plane,

although Gawronski does not appear to teach "determined via a homography defined by the first world plane", Gawronski does disclose [col. 2, lns. 40-57 at 'The method also includes the steps of mapping the first set of 3-D point data in a global coordinate system based on the first transform and scanning a second surface of the physical part with the light measuring device at a second position and orientation different from the first position and orientation of the device relative to the physical part to obtain a second set of 3-D point data which represents the geometry of the second surface in a second local coordinate system. The method also includes the steps of measuring the second position and orientation of the device relative to the physical part to obtain a second set of position data, generating a second transform based on the second set of position data, and mapping the second set of 3-D point data in the global coordinate system based on the second transform. Finally, the method includes the step of integrating the first and second sets of 3-D point data in the global coordinate system to obtain the data model of the physical part in the data format.']

Therefore it would have been obvious to one of ordinary skill in the art to have where the "source region in the image is determined via a homography defined by the first world plane", in view of Gawronski's mapping of first and second sets of 3-D point data from a 3-D physical part since it would be obvious to at least correspond to "homography--a linear 2D-to-2D mapping between the world and image planes" as defined in Applicant's specification]" supra for claim 1 and [as detailed].

C. Per independent claim 18, this is directed to a system for performing the method of independent claim 1, and therefore is rejected to independent claim 1, wherein 'graphical user interface' corresponds to "interact with a user" of claim 18.

10. Claims 3 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gawronski as applied to claim 1 and 18, respectively, above, and further in view of Isaacs (US Patent Number: 5,798,761).

A. Gawronski discloses claim 3, "The method of claim 1, wherein step a) comprises specifying two sets of parallel lines" supra for claim 1. However, Gawronski does not appear to disclose "wherein step a) comprises specifying two sets of parallel lines", but Isaacs does in col. 4, ln. 28 – col. 5, ln. 3 at 'An object displayed in a perspective view, such as in FIG. 2(b), will become smaller as it approaches vanishing point 129. If object 121 is moved too close to vanishing point 129, it will be displayed as a single dot on the screen, effectively vanishing from the user's view.

(10) In a 3D perspective view, not all screen locations have a natural mapping position on the guiding line or plane. In FIGS. 3(a)-3(b), for example, if the user moves cursor 123 to a position above horizon line 133, object 121 might move to a position that is totally unexpected and

unintended by the user. In conventional systems, object 121 often jumps abruptly to an unanticipated screen location or, in some cases, disappears altogether when cursor 123 is moved to certain locations on the screen.

(11) Similarly in FIGS. 2(a) and 2(b), discontinuous motion of object 121 may result if the user moves cursor 123 to a location that is beyond vanishing point 129. Accordingly, to prevent discontinuous or unexpected movement of a 3D object first, the screen regions that cause erratic behavior must be identified, and second, predictable behavior for the 3D object must be specified when the cursor moves through those screen regions.

(12) GUIDING LINE

(13) The situation in which a user moves a 3D object along a guiding line is now explained in more detail. A line displayed on a CRT as existing in 3D space falls into one of the three categories depicted in FIGS. 4(a), 4(b) and 4(c).

(14) In case [A] (FIG. 4(a)), the guiding line is parallel to the view plane and thus does not have a vanishing point.

(15) In case [C] (FIG. 4(c)), the guiding line is perpendicular to the view plane. As a result, the eye looks straight down the guiding line which appears as a single point on the screen.

(16) In case [B] (FIG. 4(b)), the guiding line is neither parallel nor perpendicular to the view plane and thus has a visible dimension terminating at a vanishing point.'; and col. 12, ln. 54 – col. 13, ln. 11 at '(65) The horizon and appearing lines for a plane are always parallel. The closer together they are, the nearer our view is to being edge-on. When they are coincident, the plane is viewed exactly edge-on (case [C']). In that case, projectToPlane() returns FALSE because the entire guiding plane maps to a single line on the screen and meaningful dragging is

impossible. If the guiding line falls either in case [A'] or case [B'], projectToPlane() returns "result," a world space point on the guiding plane representing the placement point for the object. The logic underlying the projectToPlane() routine is illustrated by the flowchart of FIG. 12.

(66) The first step is to initialize the value of screenChoice to the cursor position in step 300. (67) At step 302, it is determined if the guiding plane is parallel to the view plane (case [A']) by checking whether or not the guiding plane has a horizon line. A plane has a horizon line if the world eye direction is not parallel to the normal of the plane in world space. To make this determination, areParallel() receives two world space lines as input--a first line that is normal to the guiding plane (wldPlane.normal) and a second line representing the world eye direction (wldEyeDir)--and tests whether they are parallel. The result of areParallel() is negated (using the "!" symbol) and the result is stored in hasHorizon.'

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply global coordinate system for building a data model disclosed by Gawronski in combination with parallel lines in world space disclosed by Isaacs, and motivated to combine the teachings because oftentimes it is difficult, if not impossible, to determine or provide for reference features in the local coordinate systems as revealed by Gawronski in col. 1, lines 58-60.

B. Per dependent claim 19, this is directed to a system for performing the method of dependent claim 3, and therefore is rejected to dependent claim 3, wherein 'graphical user interface' corresponds to "interact with a user" of claim 19.

11. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gawronski as applied to claim 1 above, and further in view of Saund (US Patent Number: 5,835,241).

A. Gawronski discloses claim 4, "The method of claim 1, wherein step e) further comprises a bilinear interpolation of image information in the source region relative to the first world plane" supra for claim 1. However, Gawronski does not appear to disclose "wherein step e) further comprises a bilinear interpolation of image information in the source region relative to the first world plane", but Saund does in col. 13, lns. 26-54; wherein 'world coordinate system and bi-linear interpolation' correspond to "first world plane and bi-linear interpolation" respectively.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply global coordinate system for building a data model disclosed by Gawronski in combination with bi-linear interpolation with world coordinate system disclosed by Saund, and motivated to combine the teachings because oftentimes it is difficult, if not impossible, to determine or provide for reference features in the local coordinate systems as revealed by Gawronski in col. 1, lines 58-60.

12. Claims 5, 11 and (20) are rejected under 35 U.S.C. 103(a) as being unpatentable over Gawronski as applied to claim 1 and (18), respectively above, and further in view of Suzuki et al., (US Patent Number: 5,475,507), hereinafter Suzuki.

A. Gawronski discloses claim 5, "The method of claim 1 further comprising: providing a first color sample region for the source region; providing a second sample color region for the destination region; and computing a color ratio between the first color sample region and the second color sample region, wherein step e) further comprises applying the color ratio to the

image information of the source region" supra for claim 1. However, Gawronski does not appear to disclose "further comprising: providing a first color sample region for the source region; providing a second sample color region for the destination region; and computing a color ratio between the first color sample region and the second color sample region, wherein step e) further comprises applying the color ratio to the image information of the source region", but Suzuki does in col. 10, ln. 66 – col. 11, ln. 21; wherein 'object and the background color' correspond to "first and second color sample region", and 'object color and the background color are mixed with each other is modeled by the ratio k (k=0 to 1) of the object color relative to the background color' corresponds to "wherein step e) further comprises applying the color ratio to the image information of the source region".

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply global coordinate system for building a data model disclosed by Gawronski in combination with modeling color mixing as a ratio disclosed by Suzuki, and motivated to combine the teachings because when object extraction has such poor precision as to result in an image portion that should belong to the background being extracted, or an image portion that should belong to the object remaining unextracted, the subsequent image processing, such as color-changing, composition, enlargement, reduction, or transfiguration, provides an image of poor quality, such as an image including an unnecessarily color-changed portion in the background as revealed by Suzuki in col. 3, lines 4-11.

B. Per independent claim 11, this is directed to a method for performing the method of independent claim 1 and depend claim 5, and therefore is rejected to independent claim 1 and dependent claim 5.

C. Per dependent claim 20, this is directed to a system for performing the method of dependent claim 5, and therefore is rejected to dependent claim 5, wherein 'graphical user interface' corresponds to "interact with a user" of claim 20.

13. Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gawronski as applied to claim 1 above, further in view of Suzuki as applied to claim 5 above and further in view of Berriss et al., (US 2003/0086627 A1), hereinafter Berriss.

A. Gawronski and Suzuki disclose claim 6, "The method of claim 5, wherein the color ratio is computed using Gaussian weighted averages of the first and second sample color regions" supra for claim 5. However, Gawronski and Suzuki do not appear to disclose, "wherein the color ratio is computed using Gaussian weighted averages of the first and second sample color regions", but Berriss, does in [para. 0004], wherein 'Gaussian function for each dominant colour are stored as a colour descriptor of the image region, together with weights indicating the relative proportions of the image region occupied by the dominant colours, and Gaussian mixture of the colour distribution' corresponds to "wherein the color ratio is computed using Gaussian weighted averages of the first and second sample color regions".

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply global coordinate system for building a data model disclosed by Gawronski in combination with modeling color mixing as a ratio disclosed by Suzuki, and motivated to combine the teachings because when object extraction has such poor precision as to result in an image portion that should belong to the background being extracted, or an image portion that should belong to the object remaining unextracted, the subsequent image processing, such as color-changing, composition, enlargement, reduction, or transfiguration, provides an

image of poor quality, such as an image including an unnecessarily color-changed portion in the background as revealed by Suzuki in col. 3, lines 4-11, and coupled with Gaussian mixture of the colour distribution as disclosed by Berriss and motivated to combine the teachings because it provides a method and apparatus for matching, searching for and retrieving images as disclosed by Berriss in [para. 0001].

B. Per dependent claim 12, this is directed to a method for performing the method of independent claim 1 and depend claim 6, and therefore is rejected to independent claim 1 and dependent claim 6.

14. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gawronski as applied to claim 1 above, further in view of Suzuki as applied to claim 5 above and further in view of Darling, (US 5,054,008).

A. Gawronski and Suzuki disclose claim 7, "The method of claim 5, wherein the first color sample region is provided with respect to the first world plane" supra for claim 5. However, Gawronski and Suzuki do not appear to disclose, "wherein the first color sample region is provided with respect to the first world plane", but Darling, does in col. 3, lns. 6-35, wherein 'world portraying all land areas of the world in a single plane' corresponds to "world plane" and 'color coding of each of the time zones' corresponds to at least "first color sample region".

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply global coordinate system for building a data model disclosed by Gawronski in combination with modeling color mixing as a ratio disclosed by Suzuki, and motivated to combine the teachings because when object extraction has such poor precision as to result in an image portion that should belong to the background being extracted, or an image

portion that should belong to the object remaining unextracted, the subsequent image processing, such as color-changing, composition, enlargement, reduction, or transfiguration, provides an image of poor quality, such as an image including an unnecessarily color-changed portion in the background as revealed by Suzuki in col. 3, lines 4-11, and coupled with color region associated with world plane as disclosed by Darling and motivated to combine the teachings because it provides associating first and second time zone positions and corresponding land areas by means of the visual coding as disclosed by Darling in [Abstract].

15. Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gawronski as applied to claim 1 above, and further in view of Pryor, (US Patent Number: 4,898,537).

A. Gawronski discloses claim 8, "The method of claim 1, further comprising specifying a second world plane and a relative scale factor in the image, wherein: step d) comprises determining a source region in the image relative to the first world plane and corresponding to the destination region relative to the second world plane and the relative scale factor; and step e) comprises transforming the image information of the source region relative to the first world plane to image information of the destination region relative to the second world plane and the relative scale factor" supra for claim 1. However, Gawronski does not appear to disclose "further comprising specifying a second world plane and a relative scale factor in the image, wherein: step d) comprises determining a source region in the image relative to the first world plane and corresponding to the destination region relative to the second world plane and the relative scale factor; and step e) comprises transforming the image information of the source region relative to the first world plane to image information of the destination region relative to the second world

plane and the relative scale factor", but Pryor does in Abstract; wherein 'first surface is a map of the world and s second an antipodal map of the world reversed by 180 degree' correspond to "first and second world planes", wherein scale factor inherently corresponds to one – see Fig. 1.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply global coordinate system for building a data model disclosed by Gawronski in combination with first and second world planes disclosed by Pryor, and motivated to combine the teachings because the process provides for complex spatially related information as revealed by Pryor in col. 1, lines 1-2.

B. Gawronski and Pryor disclose claim 10, "The method of claim 8, wherein specifying the relative scale factor comprises specifying a line segment of unit length relative the first world plane and specifying a line segment of unit length relative to the second world plane" supra for claim 8, wherein grid patterns of relative 180 degree world planes of Fig 1 correspond to "specifying a line segment of unit length relative the first world plane and specifying a line segment of unit length relative to the second world plane".

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply global coordinate system for building a data model disclosed by Gawronski in combination with first and second world planes and grid patterns disclosed by Pryor, and motivated to combine the teachings because the process provides for complex spatially related information as revealed by Pryor in col. 1, lines 1-2.

16. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gawronski as applied to claim 1 above, further in view of Isaacs as applied to claim 3 above, and further in view of Pryor as applied to claim 8 above.

A. Per dependent claim 9, "The method of claim 8, wherein specifying the second world plane comprises specifying two sets of parallel lines", this is directed to a method for performing the method of dependent claims 1, 3 and 8 and therefore is rejected to dependent claims 1, 3 and 8.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply global coordinate system for building a data model disclosed by Gawronski in combination with parallel lines in world space disclosed by Isaacs, and motivated to combine the teachings because oftentimes it is difficult, if not impossible, to determine or provide for reference features in the local coordinate systems as revealed by Gawronski in col. 1, lines 58-60, and coupled with first and second world planes disclosed by Pryor, and motivated to combine the teachings because the process provides for complex spatially related information as revealed by Pryor in col. 1, lines 1-2.

17. Claim 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gawronski as applied to claim 1 and 18, respectively, above, and further in view of Shirakawa (US 5,818,415).

A. Gawronski discloses claim 13, "A clone-brushing method of painting in an image, the method comprising:

a) providing a source position in the image;

b) providing an initial destination position in the image;

c) determining a snapped destination position;

d) identifying a destination region in the image relative to the snapped destination position;

e) determining a source region in the image corresponding to the destination region;

f) transforming image information of the source region to image information of the destination region; and

g) copying the transformed image information to the destination region" supra for claim 1. However, Gawronski does not appear to disclose "c) determining a snapped destination position; d) identifying a destination region in the image relative to the snapped destination position", but Shirakawa does in col. 3, lns. 51-65. Wherein 'second grid origin movement means changes the coordinate values of the origin of the effective grid to coordinate values obtained by the normalization' and 'final operation position (final snap position)' correspond to "snapped destination position".

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply global coordinate system for building a data model disclosed by Gawronski in combination with final snap position disclosed by Shirakawa, and motivated to combine the teachings because graphic form inputting apparatus with a grid function, in order to allow a graphic form such as a rectangle, a circle or a polygon to be inputted with accurate dimensions, a grating called grid is displayed on the screen of a display apparatus and coordinate values of a point on the screen designated by an operator by means of a pointing device such as a mouse are normalized (snapped) to coordinate values of one of intersecting points of grid lines of

the grid which is nearest to the position defined by the coordinate values of the designated point as revealed by Shirakawa in col. 1, lines 13-23.

B. Gawronski and Shirakawa disclose claim 14, "The method of claim 13, wherein step c) comprises searching a collection of candidate destination positions" supra for claim 13, wherein 'the coordinate values of the origin of one of the two grids' corresponds to "collection of candidate destination positions".

Allowable Subject Matter

18. Claims 15-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

19. Claims 15-17 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph and 1st paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Responses

20. Responses to this action should be mailed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231.

Inquiries

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory F. Cunningham whose telephone number is (571) 272-7784.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on (571) 272-7794. The Central FAX Number for the organization where this application or proceeding is assigned is **571-273-8300**.

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G.F. Cunningham

Gregory F. Cunningham
Examiner
Art Unit 2676

gfc

03/29/2006

Kee M. Tung
Primary Examiner